

Notice of variation and consolidation with introductory note

The Environmental Permitting (England & Wales) Regulations 2010

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Cofely Limited

Huddersfield Chemical Works (Syngenta CHP) Leeds Road Huddersfield West Yorkshire HD2 1FF

Variation application number

EPR/WP3633CS/V004

Permit number

EPR/WP3633CS

Huddersfield Chemical Works (Syngenta CHP) Permit number EPR/WP3633CS

Introductory note

This introductory note does not form a part of the notice.

Under the Environmental Permitting (England & Wales) Regulations 2010 (schedule 5, part 1, paragraph 19) a variation may comprise a consolidated permit reflecting the variations and a notice specifying the variations included in that consolidated permit.

Schedule 1 of the notice specifies that all the conditions of the permit have been varied and schedule 2 comprises a consolidated permit which reflects the variations being made and contains all conditions relevant to this permit.

The requirements of the Industrial Emissions Directive (IED) 2010/75/EU are given force in England through the Environmental Permitting (England and Wales) Regulations 2010 (the EPR) (as amended).

This Permit, for the operation of large combustion plant (LCP), as defined by articles 28 and 29 of the Industrial Emissions Directive (IED), is varied by the Environment Agency to implement the special provisions for LCP given in the IED, by the 1 January 2016 (Article 82(3)). The IED makes special provisions for LCP under Chapter III, introducing new Emission Limit Values (ELVs) applicable to LCP, referred to in Article 30(2) and set out in Annex V.

As well as implementing Chapter III of IED, the consolidated variation notice takes into account and brings together in a single document all previous variations that relate to the original permit issued. It also modernises all conditions to reflect the conditions contained in our current generic permit template.

The Operator has chosen to operate this LCP under the ELV compliance route.

The variation notice uses an updated LCP number in accordance with the most recent DEFRA LCP references.

The LCP reference has changed as follows:

LCP136 is changed to LCP61

The conditions associated with the high-pressure steam boiler (HPB1) are not affected by this variation.

The rest of the installation is unchanged and continues to be operated as follows:

Four separate operators, as part of a multi operator single installation, occupy the Huddersfield Chemical Industry installation. This Permit authorises Cofely Limited to undertake the activities listed in Schedule 1 of this permit.

The Installation lies approximately 2.6km to the northeast of Huddersfield town centre on the A62 Leeds Road. The permitted area occupies approximately 0.5 hectares from a total area of approximately 46 hectares. Residential properties are within 1 – 2km in the north, northwest and southwest. Schools are located within 1.5km in the north, northwest, east and southwest. There are two sites of special scientific interest within 10km of the installation and none within 2km. There are no Special Areas of Conservation or Special Protection Areas within 10km of the Installation. The River Colne and Fenay Beck (part culverted) run through the Installation, the Colne running to the south of the Permitted area and Fenay beck near to the northeast of the permitted area.

The main features are the production of electricity and steam for distribution to the three chemical manufacturing operations within the Installation. Natural gas is used in the combustion process with gas-oil as a standby fuel when gas is unavailable. The combustion plant consists of:-

- a) LCP61 with a total aggregated net rated thermal input of 92MW which includes within a single windshield which is 45m in height:
 - i) a CHP unit (gas turbine, at 23.4MW and a waste heat boiler at 40MW) discharging via flue A1.

- ii) an intermediate pressure steam boiler at 28.6MW discharging via flue A2.
- b) A high-pressure steam boiler with a total net rated thermal input of 48.5MW discharging via a separate windshield, A3, at a height of 45m.

The main exhaust gases produced from the CHP plant are carbon dioxide (CO_2), oxides of nitrogen (NO_x) and sulphur dioxide (SO_2).

All process effluents are discharged to the on-site physico / chemical effluent treatment plant operated by Syngenta Limited prior to discharge to a primary biological treatment plant, further treatment at the Cooper Bridge Sewage Treatment Works with final discharge to the River Calder. Steam condensate is not returned to the CHP from the three chemical plants, it is instead discharged to the on-site effluent treatment plant. It is the technical connection to the effluent treatment plant which brings Cofely Limited into the Huddersfield Chemical Industry installation.

The schedules specify the changes made to the permit.

The status log of a permit sets out the permitting history, including any changes to the permit reference number.

Status log of the permit			
Description	Date	Comments	
Application UP3638LR (EPR/UP3638LR/A001)	Duly made 03/03/06	Application for CHP plant.	
Additional information received	02/08/06		
Permit determined EPR/UP3638LR (PAS Billing ref. UP3638LR)	22/12/06	Original permit issued to Dalkia Utilities Services PLC.	
Agency variation determined EPR/UP3638LR/V002 (PAS Billing ref: VP3633KT)	13/11/09	Update to operators of related permits and the site plan.	
Application EPR/WP3633CS/T001 (full transfer of permit EPR/UP3638LR)	Duly made 17/01/12	Application received 23/12/11 to transfer the permit in full to Cofely limited.	
Transfer determined EPR/WP3633CS/T001 (PAS Billing ref: WP3633CS)	23/01/12	Full transfer of permit complete.	
Application EPR/WP3633CS/V002 (variation)	Duly made 19/06/13	Application to remove the permit requirement for Continuous Emission Monitoring (CEM).	
Variation determined EPR/WP3633CS/V002 (PAS Billing ref: SP3035NB)	22/07/13	Varied permit issued.	
Agency variation determined EPR/WP3633CS/V003 (PAS Billing ref: BP3836WF)	11/12/14	Administrative variation issued to reflect the transfer of Environmental Permit EPR/RP3333LP from Arch UK Biocide Limited to Arch Timber Protection Limited.	

Status log of the permit			
Description	Date	Comments	
Regulation 60 Notice sent to the Operator	31/10/14	Issue of a Notice under Regulation 60(1) of the EPR. Environment Agency Initiated review and variation to vary the permit under IED to implement the special provisions for LCP under Chapter III, introducing new Emission Limit Values (ELVs) applicable to LCP, referred to in Article 30(2) and set out in Annex V. The permit is also updated to modern conditions.	
Regulation 60 Notice response	20/03/14	Response received from the Operator.	
Additional information received	16/06/15	Response to request for further information (RFI) dated 13/05/15.	
Additional information received	20/10/15	Response to request for further information (RFI) dated 20/10/15.	
Variation determined EPR/WP3633CS/V004 (PAS Billing ref: RP3634AY)	22/12/15	Varied and consolidated permit issued in modern condition format. Variation effective from 01/01/2016.	

Other Part A installation permits relating to this installation			
Operator Permit number Date of issue			
Syngenta Limited	EPR/UP3138LT	06/12/06	
Lubrazol Limited	EPR/AP3733LE	18/12/06	
Arch Timber Protection Limited	EPR/XP3533WY	01/01/15 (effective date)	

End of introductory note

Notice of variation and consolidation

The Environmental Permitting (England and Wales) Regulations 2010

The Environment Agency in exercise of its powers under regulation 20 of the Environmental Permitting (England and Wales) Regulations 2010 varies and consolidates

Permit number

EPR/WP3633CS

Issued to

Cofely Limited ("the operator")

whose registered office is

Cofely Shared Services Centre Q3 Office Quorum Business Park Benton Lane Newcastle Upon Tyne NE12 8EX

company registration number 665702

to operate a regulated facility at

Huddersfield Chemical Works (Syngenta CHP) Leeds Road Huddersfield West Yorkshire HD2 1FF

to the extent set out in the schedules.

The notice shall take effect from 01/01/2016

Name	Date
Anne Nightingale	21/12/2015

Authorised on behalf of the Environment Agency

Schedule 1

All conditions have been varied by the consolidated permit as a result of an Environment Agency initiated variation.

Schedule 2 – consolidated permit

Consolidated permit issued as a separate document.

Permit

The Environmental Permitting (England and Wales) Regulations 2010

Permit number

EPR/WP3633CS

This is the consolidated permit referred to in the variation and consolidation notice for application EPR/WP3633CS/V004 authorising,

Cofely Limited ("the operator"),

whose registered office is

Cofely Shared Services Centre Q3 Office Quorum Business Park Benton Lane Newcastle Upon Tyne NE12 8EX

company registration number 665702

to operate part of an installation at

Huddersfield Chemical Works (Syngenta CHP) Leeds Road Huddersfield West Yorkshire HD2 1FF

to the extent authorised by and subject to the conditions of this permit.

Name	Date
Anne Nightingale	21/12/15

Authorised on behalf of the Environment Agency

Conditions

1 Management

1.1 General management

- 1.1.1 The operator shall manage and operate the activities:
 - in accordance with a written management system that identifies and minimises risks of pollution, including those arising from operations, maintenance, accidents, incidents, non-conformances, closure and those drawn to the attention of the operator as a result of complaints; and
 - (b) using sufficient competent persons and resources.
- 1.1.2 Records demonstrating compliance with condition 1.1.1 shall be maintained.
- 1.1.3 Any person having duties that are or may be affected by the matters set out in this permit shall have convenient access to a copy of it kept at or near the place where those duties are carried out.

1.2 Energy efficiency

- 1.2.1 The operator shall:
 - (a) take appropriate measures to ensure that energy is used efficiently in the activities;
 - take appropriate measures to ensure the efficiency of energy generation at the permitted installation is maximised;
 - (c) review and record at least every four years whether there are suitable opportunities to improve the energy efficiency of the activities; and
 - (d) take any further appropriate measures identified by a review.

1.3 Efficient use of raw materials

- 1.3.1 The operator shall:
 - (a) take appropriate measures to ensure that raw materials and water are used efficiently in the activities;
 - (b) maintain records of raw materials and water used in the activities;
 - (c) review and record at least every four years whether there are suitable alternative materials that could reduce environmental impact or opportunities to improve the efficiency of raw material and water use; and
 - (d) take any further appropriate measures identified by a review.

1.4 Avoidance, recovery and disposal of wastes produced by the activities

- 1.4.1 The operator shall take appropriate measures to ensure that:
 - (a) the waste hierarchy referred to in Article 4 of the Waste Framework Directive is applied to the generation of waste by the activities;
 - (b) any waste generated by the activities is treated in accordance with the waste hierarchy referred to in Article 4 of the Waste Framework Directive; and
 - (c) where disposal is necessary, this is undertaken in a manner which minimises its impact on the environment.

1.4.2 The operator shall review and record at least every four years whether changes to those measures should be made and take any further appropriate measures identified by a review.

1.5 Multiple operator installations

1.5.1 Where the operator notifies the Environment Agency under condition 4.3.1 (a) or 4.3.1 (c), the operator shall also notify without delay the other operator(s) of the installation of the same information.

2 Operations

2.1 Permitted activities

2.1.1 The operator is only authorised to carry out the activities specified in schedule 1 table S1.1 (the "activities").

2.2 The site

2.2.1 The activities shall not extend beyond the site, being the land shown edged in green on the site plan at schedule 7 to this permit, which is within the area edged in red on the site plan that represents the extent of the installation covered by this permit and that/those of (the) other operator(s) of the installation.

2.3 Operating techniques

- 2.3.1 The activities shall, subject to the conditions of this permit, be operated using the techniques and in the manner described in the documentation specified in schedule 1, table S1.2, unless otherwise agreed in writing by the Environment Agency.
- 2.3.2 For the following activities referenced in schedule 1, table S1.1: LCP61. Without prejudice to condition 2.3.1, the activities shall be operated in accordance with the "Electricity Supply Industry IED Compliance Protocol for Utility Boilers and Gas Turbines" revision 1 dated February 2015 or any later version unless otherwise agreed in writing by the Environment Agency.
- 2.3.3 If notified by the Environment Agency that the activities are giving rise to pollution, the operator shall submit to the Environment Agency for approval within the period specified, a revision of any plan or other documentation ("plan") specified in schedule 1, table S1.2 or otherwise required under this permit which identifies and minimises the risks of pollution relevant to that plan, and shall implement the approved revised plan in place of the original from the date of approval, unless otherwise agreed in writing by the Environment Agency.
- 2.3.4 Any raw materials or fuels listed in schedule 2 table S2.1 shall conform to the specifications set out in that table.
- 2.3.5 For the following activities referenced in schedule 1, table S1.1: LCP61 and HP1. Standby fuel (gasoil) may be used but for no more than 500 hours per year.
- 2.3.6 For the following activities referenced in schedule 1, table S1.1: LCP61 operating in open cycle mode. The activities shall not operate for more than 300 hours per year.
- 2.3.7 For the following activities referenced in schedule 1, table S1.1: LCP61. The end of the start up period and the start of the shutdown period shall conform to the specifications set out in Schedule 1, tables S1.2 and S1.4.
- 2.3.8 The operator shall ensure that where waste produced by the activities is sent to a relevant waste operation, that operation is provided with the following information, prior to the receipt of the waste:
 - (a) the nature of the process producing the waste;

- (b) the composition of the waste;
- (c) the handling requirements of the waste;
- (d) the hazardous property associated with the waste, if applicable; and
- (e) the waste code of the waste.
- 2.3.9 The operator shall ensure that where waste produced by the activities is sent to a landfill site, it meets the waste acceptance criteria for that landfill.

2.4 Improvement programme

- 2.4.1 The operator shall complete the improvements specified in schedule 1 table S1.3 by the date specified in that table unless otherwise agreed in writing by the Environment Agency.
- 2.4.2 Except in the case of an improvement which consists only of a submission to the Environment Agency, the operator shall notify the Environment Agency within 14 days of completion of each improvement.

3 Emissions and monitoring

3.1 Emissions to water, air or land

- 3.1.1 There shall be no point source emissions to water, air or land except from the sources and emission points listed in schedule 3 tables S3.1, S3.2 and S3.3.
- 3.1.2 The limits given in schedule 3 shall not be exceeded.
- 3.1.3 Periodic monitoring shall be carried out at least once every 5 years for groundwater and 10 years for soil, unless such monitoring is based on a systematic appraisal of the risk of contamination.

3.2 Emissions of substances not controlled by emission limits

- 3.2.1 Emissions of substances not controlled by emission limits (excluding odour) shall not cause pollution. The operator shall not be taken to have breached this condition if appropriate measures, including, but not limited to, those specified in any approved emissions management plan, have been taken to prevent or where that is not practicable, to minimise, those emissions.
- 3.2.2 The operator shall:
 - (a) if notified by the Environment Agency that the activities are giving rise to pollution, submit to the Environment Agency for approval within the period specified, an emissions management plan which identifies and minimises the risks of pollution from emissions of substances not controlled by emission limits;
 - (b) implement the approved emissions management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.
- 3.2.3 All liquids in containers, whose emission to water or land could cause pollution, shall be provided with secondary containment, unless the operator has used other appropriate measures to prevent or where that is not practicable, to minimise, leakage and spillage from the primary container.

3.3 Odour

3.3.1 Emissions from the activities shall be free from odour at levels likely to cause pollution outside the site, as perceived by an authorised officer of the Environment Agency, unless the operator has used appropriate measures, including, but not limited to, those specified in any approved odour management plan, to prevent or where that is not practicable to minimise the odour.

3.3.2 The operator shall:

- (a) if notified by the Environment Agency that the activities are giving rise to pollution outside the site due to odour, submit to the Environment Agency for approval within the period specified, an odour management plan which identifies and minimises the risks of pollution from odour;
- (b) implement the approved odour management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

3.4 Noise and vibration

3.4.1 Emissions from the activities shall be free from noise and vibration at levels likely to cause pollution outside the site, as perceived by an authorised officer of the Environment Agency, unless the operator has used appropriate measures, including, but not limited to, those specified in any approved noise and vibration management plan to prevent or where that is not practicable to minimise the noise and vibration.

3.4.2 The operator shall:

- (a) if notified by the Environment Agency that the activities are giving rise to pollution outside the site due to noise and vibration, submit to the Environment Agency for approval within the period specified, a noise and vibration management plan which identifies and minimises the risks of pollution from noise and vibration;
- (b) implement the approved noise and vibration management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

3.5 Monitoring

- 3.5.1 The operator shall, unless otherwise agreed in writing by the Environment Agency, undertake the monitoring specified in the following tables in schedule 3 to this permit:
 - (a) point source emissions specified in tables S3.1, S3.2 and S3.3
- 3.5.2 The operator shall maintain records of all monitoring required by this permit including records of the taking and analysis of samples, instrument measurements (periodic and continuous), calibrations, examinations, tests and surveys and any assessment or evaluation made on the basis of such data.
- 3.5.3 Monitoring equipment, techniques, personnel and organisations employed for the emissions monitoring programme and the environmental or other monitoring specified in condition 3.5.1 shall have either MCERTS certification or MCERTS accreditation (as appropriate), where available, unless otherwise agreed in writing by the Environment Agency.
- 3.5.4 Permanent means of access shall be provided to enable sampling/monitoring to be carried out in relation to the emission points specified in schedule 3 tables S3.1, S3.2 and S3.3 unless otherwise agreed in writing by the Environment Agency.

3.6 Monitoring for the purposes of the Industrial Emissions Directive Chapter III

- 3.6.1 All monitoring required by this permit shall be carried out in accordance with the provisions of Annex V of the Industrial Emissions Directive.
- 3.6.2 If CEN standards are not available, ISO standards, national or international standards which will ensure the provision of data of an equivalent scientific quality shall be used, as agreed in writing with the Environment Agency.

4 Information

4.1 Records

- 4.1.1 All records required to be made by this permit shall:
 - (a) be legible;
 - (b) be made as soon as reasonably practicable;
 - (c) if amended, be amended in such a way that the original and any subsequent amendments remain legible, or are capable of retrieval; and
 - (d) be retained, unless otherwise agreed in writing by the Environment Agency, for at least 6 years from the date when the records were made, or in the case of the following records until permit surrender:
 - (i) off-site environmental effects; and
 - (ii) matters which affect the condition of the land and groundwater.
- 4.1.2 The operator shall keep on site all records, plans and the management system required to be maintained by this permit, unless otherwise agreed in writing by the Environment Agency.

4.2 Reporting

- 4.2.1 The operator shall send all reports and notifications required by the permit to the Environment Agency using the contact details supplied in writing by the Environment Agency.
- 4.2.2 A report or reports on the performance of the activities over the previous year shall be submitted to the Environment Agency by 31 January (or other date agreed in writing by the Environment Agency) each year. The report(s) shall include as a minimum:
 - (a) a review of the results of the monitoring and assessment carried out in accordance with the permit including an interpretive review of that data;
 - (b) the resource efficiency metrics set out in schedule 4 table S4.2;
 - (c) the performance parameters set out in schedule 4 table S4.3 using the forms specified in table S4.4 of that schedule.
 - (d) where condition 2.3.6 applies, the hours of operation in any year; and
 - (e) where condition 2.3.5 applies, the start date and time, and the days and hours of operation for each period of standby fuel operation;
- 4.2.3 Within 28 days of the end of the reporting period the operator shall, unless otherwise agreed in writing by the Environment Agency, submit reports of the monitoring and assessment carried out in accordance with the conditions of this permit, as follows:
 - (a) in respect of the parameters and emission points specified in schedule 4 table S4.1;
 - (b) for the reporting periods specified in schedule 4 table S4.1 and using the forms specified in schedule 4 table S4.4; and
 - (c) giving the information from such results and assessments as may be required by the forms specified in those tables.
- 4.2.4 The operator shall, unless notice under this condition has been served within the preceding four years, submit to the Environment Agency, within six months of receipt of a written notice, a report assessing whether there are other appropriate measures that could be taken to prevent, or where that is not practicable, to minimise pollution.

4.3 Notifications

4.3.1 In the event:

- (a) that the operation of the activities gives rise to an incident or accident which significantly affects or may significantly affect the environment, the operator must immediately—
 - (i) inform the Environment Agency,
 - (ii) take the measures necessary to limit the environmental consequences of such an incident or accident, and
 - (iii) take the measures necessary to prevent further possible incidents or accidents;
- (b) of a breach of any permit condition the operator must immediately—
 - (i) inform the Environment Agency, and
 - (ii) take the measures necessary to ensure that compliance is restored within the shortest possible time;
- (c) of a breach of permit condition which poses an immediate danger to human health or threatens to cause an immediate significant adverse effect on the environment, the operator must immediately suspend the operation of the activities or the relevant part of it until compliance with the permit conditions has been restored.
- 4.3.2 Any information provided under condition 4.3.1 (a)(i), 4.3.1 (b)(i) where the information relates to the breach of a condition specified in the permit shall be confirmed by sending the information listed in schedule 5 to this permit within the time period specified in that schedule.
- 4.3.3 Where the Environment Agency has requested in writing that it shall be notified when the operator is to undertake monitoring and/or spot sampling, the operator shall inform the Environment Agency when the relevant monitoring and/or spot sampling is to take place. The operator shall provide this information to the Environment Agency at least 14 days before the date the monitoring is to be undertaken.
- 4.3.4 The Environment Agency shall be notified within 14 days of the occurrence of the following matters, except where such disclosure is prohibited by Stock Exchange rules:

Where the operator is a registered company:

- (a) any change in the operator's trading name, registered name or registered office address; and
- (b) any steps taken with a view to the operator going into administration, entering into a company voluntary arrangement or being wound up.

Where the operator is a corporate body other than a registered company:

- (c) any change in the operator's name or address; and
- (d) any steps taken with a view to the dissolution of the operator.
- 4.3.5 Where the operator proposes to make a change in the nature or functioning, or an extension of the activities, which may have consequences for the environment and the change is not otherwise the subject of an application for approval under the Regulations or this permit:
 - (a) the Environment Agency shall be notified at least 14 days before making the change; and
 - (b) the notification shall contain a description of the proposed change in operation.
- 4.3.6 The Environment Agency shall be given at least 14 days notice before implementation of any part of the site closure plan.
- 4.3.7 Where the operator has entered into a climate change agreement with the Government, the Environment Agency shall be notified within one month of:
 - (a) a decision by the Secretary of State not to re-certify the agreement;
 - (b) a decision by either the operator or the Secretary of State to terminate the agreement; and

- (c) any subsequent decision by the Secretary of State to re-certify such an agreement.
- 4.3.8 The operator shall inform the Environment Agency in writing of the closure of any LCP within 28 days of the date of closure.

4.4 Interpretation

- 4.4.1 In this permit the expressions listed in schedule 6 shall have the meaning given in that schedule.
- 4.4.2 In this permit references to reports and notifications mean written reports and notifications, except where reference is made to notification being made "immediately" or "without delay", in which case it may be provided by telephone.

Schedule 1 – Operations

Activity reference	Activity listed in Schedule 1 of the EP Regulations	Description of specified activity	Limits of specified activity
A1	Section 1.1 A(1) (a): Burning any fuel in an appliance with a rated thermal input of 50 megawatts or more.	LCP61: Combined heat and power (CHP) production of steam and electricity which includes within the same windshield: a) A CHP unit (gas turbine, at 23.4MW and a waste heat recovery boiler at 40MW) – discharging via flue A1 and, when the GT is in bypass mode, flue A4; and b) An intermediate pressure steam boiler at 28.6MW – discharging via flue A2. HPB1: High Pressure Boiler with a total net rated thermal input of 48.5MW discharging via a separate windshield A3. SG1: Standby Generator with a total net rated thermal input of 0.194MW for the generation of electricity in emergency.	From receipt of natural gas and gas-oil to discharge of exhaust gases and the generation of electricity and steam for export.
	Directly Associated Activity	crocking in emergency.	
A2	Directly associated activity	Boiler water.	The collection, pumping, filtering and treatment of water.
A3	Directly associated activity	Effluent treatment	From receipt of raw materials to dispatch to chemical effluent and dirty water system.
A5	Directly associated activity	Surface water drainage.	Handling and storage of site drainage until discharge to the site surface water system.

Table S1.2 Operating techniques			
Description	Parts	Date Received	
Application	The response to section 2.1 and 2.2	03/03/06	
Schedule 4 Notice (Request dated 19/07/06)	Response to questions 1, 3 – 5, 15 and 16	02/08/06	
Response to regulation 60(1) Notice – request for information dated 31/10/14	Compliance route and operating techniques identified in response to questions 4 (LCP configuration), 5 (net rated thermal input), 6 (MSUL/MSDL), 9 (monitoring requirements).	20/03/15	
Receipt of additional information to the regulation 60(1) Notice. requested by letter dated 13/05/15	Compliance route and operating techniques identified in responses to questions 4 (LCP configuration), 5 (net rated thermal input), 5 (insert topic), 6 (MSUL/MSDL), 8 (standby fuel), 9 (monitoring requirements)	28/05/15	
Receipt of additional information to the regulation 60(1) Notice. requested by e-mail dated 20/10/15 and 21/1215	Compliance route and operating techniques identified in response to questions 2 (compliance route),7 (ELVs)	20/10/15 and 21/12/15	

Table S1.3 Improvement programme requirements		
Reference	Requirement	Date
IC01	A written plan shall be submitted to the Agency for approval detailing the measures required to implement training to address the requirements of the Pollution Prevention and Control Regulations and the requirements of this Permit. The plan shall contain dates for completion of the revised training programme and roll out of the training. The notification requirements of condition 2.5.2 shall be deemed to have been complied with on submission of the plan.	Complete
	The plan shall be implemented by the operator from the date of approval by the Agency.	
IC02	A written plan shall be submitted to the Agency for approval detailing the results of a CCTV survey of all drains and subsurface structures within the permitted area and the measures to comply with the requirements of section 2.2.9 of TGN for the Combustion Sector. Where appropriate the plan shall contain dates for the implementation of individual measures. The notification requirements of condition 2.5.2 shall be deemed to have been complied with on submission of the plan. The plan shall be implemented by the operator from the date of approval	Complete
	by the Agency.	
IC03	A written Site Closure plan shall be submitted to the Agency for approval in accordance with Section 2.11 of TGN for the Combustion Sector. The notification requirements of condition 2.5.2 shall be deemed to have been complied with on submission of the plan.	Complete
	The plan shall be implemented by the operator from the date of approval by the Agency.	

Reference	Requirement	Date
IC04	 A written report shall be submitted to the Agency for approval detailing the following points: submit a plan of appropriate scale showing the location of all below ground structures – culverts, soak aways, interceptors, pollution control measures, surface water and effluent drains, a description of the construction details of the below ground structures as identified above and the details of any CCTV work undertaken, submit an assessment of the likelihood of pollution for all potentially polluting substances using Table D2A and B of the ASR Template 1. This should be undertaken in accordance with sections 4.3, 4.4 and 4.5 of the H7 Guidance on the Protection of Land. The conclusions and the 5 key questions must be supported with sufficient justification to support and conclusion of little likelihood of future pollution, a plan of an appropriate scale delineating the site operational areas on the basis of both the locations of potential emission points and site-specific conditions determining the extent to which pollution could spread. The report shall be made with reference to Section 4.4 and Box 3 of Horizontal Guidance Note 7. 	Complete
IC05	The notification requirements of condition 2.5.2 shall be deemed to have been complied with on submission of the report. A written report shall be submitted to the Agency for approval detailing a revised environmental impact assessment for the installation. The assessment should consider releases of Nitrogen Dioxide at the Permit emission limit values (ELVs), BAT ELVs, with reference to Section 3 of TGN for the Combustion Sector and worst case scenario for releases from A1, A2 and A3 with reference to Horizontal Guidance Note H1. The notification requirements of condition 2.5.2 shall be deemed to have been complied with on submission of the report.	Complete
IC06	 The operator shall undertake a review of; the type and location of extractive sampling ports for emissions to air from A1, A2 and A3 and the location of the continuous emission monitors at A1 and A3. The review should be undertaken with reference to Environment agency Guidance Note M1. monitoring standards and methods of analysis, reference periods and method uncertainties with reference to Agency guidance note TGN Monitoring (M2). Where appropriate the review shall contain dates for the implementation of individual measures. The notification requirements of condition 2.5.2 shall be deemed to have been complied with on submission of the plan. 	Complete
IC07	A written plan shall be submitted to the Agency for approval detailing the results of a BAT options appraisal for the discharge of condensate from the High Pressure boiler to ground. The appraisal shall incorporate measures to comply with the requirements of Section 2.2.6 of TGN for the Combustion Sector . Where appropriate the plan shall contain dates for the implementation of individual measures. The notification requirements of condition 2.5.2 shall be deemed to have been complied with on submission of the plan. The plan shall be implemented by the operator from the date of approval by the Agency	Complete

Table S1.3 Improvement programme requirements			
Reference	Requirement	Date	
IC08	A written report shall be submitted to the Agency for approval detailing a method for the determination of sulphur dioxide and particulate matter from emission point A1 and A2 including details of the verification of the suitability of such a method. The notification requirements of condition 2.5.2 shall be deemed to have	Complete	
	been complied with on submission of the report.		
IC09	A written procedure shall be submitted to the agency detailing the measures to be used so that monitoring equipment, personnel and organisations employed for the emissions monitoring programme shall have either MCERTS certification or accreditation in accordance with condition 3.6.3. The notification requirements of condition 2.5.2 shall be deemed to have been complied with on submission of the procedure.	Complete	
	The procedure shall be implemented by the operator from the date of approval in writing by the Agency		
IC10	A revised, up-to-date and detailed graphical Conceptual Site Model (CSM) shall be submitted to the Agency for approval. The revision should depict the relevant activities on site, all source-pathway-receptor relationships and identify the specific pollution transport parameters which have been assumed in the model. Reference should be made to Section 4.6 of TGN 7.	Complete	
	The notification requirements of condition 2.5.2 shall be deemed to have been complied with on submission of the CSM.		
	The operator shall provide a report in writing to the Environment Agency for agreement which provides the net rated thermal input for LCP61. The net rated thermal input is the 'as built' value unless the plant has been modified significantly resulting in an improvement of the plant efficiency or output that increases the rated thermal input (which typically requires a performance test to demonstrate that guaranteed improvements have been realised).		
	Evidence to support this figure, in order of preference, shall be in the form of:-		
IC11	 Performance test results* during contractual guarantee testing or at commissioning (quoting the specified standards or test codes), Performance test results after a significant modification (quoting the specified standards or test codes), Manufacturer's contractual guarantee value, Design data, e.g., nameplate rating of a boiler or design 	31/12/16	
	documentation for a burner system; Operational efficiency data as verified and used for heat accountancy purposes, Data provided as part of Due Diligence during acquisition, *Performance test results shall be used if these are available.		
IC12	For LCPD LCP136 (now LCP61 under IED). Annual emissions of dust, sulphur dioxide and oxides of nitrogen including energy usage for the year 01/01/2015 to 31/12/2015 shall be submitted to the Environment Agency using form AAE1 via the NERP Registry. If the LPCD LCP was a NERP plant the final quarter submissions shall be provided on the RTA 1 form to the NERP Registry	31/03/16	

Table S1.3 Improvement programme requirements			
Reference	Requirement	Date	
	The operator shall write to the Environment Agency for approval if an increase in the ELV limits set in table S3.1 of this permit is sought to the allowable limits set out in IED Annex V, Part 1, and paragraph 6. The written submission from the operator shall contain:-		
IC13	 verification of the energy efficiency quoted for the plant an assessment of any energy efficiency gains that may be gained through the limit increase together with detailed proposals for validating this figure. an assessment of the impact of those increased emission limits from site on any air quality objectives. 	30/06/16	
	 any impact the increased emissions might have on local receptors. 		

Table S1.4 Start-up and Shut-down thresholds			
Emission Point and Unit Reference	"Minimum Start-Up Load" Load in MW and as percent of rated power output (%) or steam flow rate in t/hr and as percent of rated thermal output (%) and when two of the criteria listed below for the LCP or unit have been met.	"Minimum Shut-Down Load" Load in MW and as percent of rated power output (%) or steam flow rate in t/hr and as percent of rated thermal output (%) and when two of the criteria listed below for the LCP or unit have been met.	
A1: LCP61 GT and GT+WHB (in supplementary mode)	6.3MWe; 100% load at GT outlet temperature 1059°C and GT shaft speed 10,980rpm	6.3MWe; 100% load at GT outlet temperature 1059°C and GT shaft speed 10,980rpm	
A1: LCP61 WHB (auxiliary mode)	15t/hr steam; 25% load at 42bar and 400°C	15t/hr steam; 25% load at 42bar and 400°C	
A2: LCP61-PB	7t/hr steam; 25% load at 13.7 bar and 300°C	7t.hr steam; 25% load at 13.7 bar and 300°C	
A4: LCP61	6.3MWe; 100% load	6.3MWe; 100% load	

Schedule 2 – Waste types, raw materials and fuels

Table S2.1 Raw materials and fuels				
Raw materials and fuel description	Specification			
Natural gas	-			
Gas oil	Less than 0.1% w/w sulphur content			

Schedule 3 – Emissions and monitoring

Emission point ref. & location	Parameter	Source	Limit (including unit)-these limits do not apply during start up or shut down.	Reference Period	Monitoring frequency	Monitoring standard or method
	Oxides of Nitrogen (NO and NO ₂ expressed as NO ₂)		55 mg/m ³ MSUL/MSDL to base load ¹	-	At least every 6 months	BS EN 14792
A1 [Point A1 on site plan in	Carbon Monoxide	LCP61 Gas turbine with WHRB in	100 mg/m ³ MSUL/MSDL to base load ¹	-		BS EN 15058
schedule 7]	Sulphur Dioxide	supplementary mode fired on natural gas	-	-	At least every 6 months	Concentration by calculation, as agreed in writing with the Environment Agency
	Oxides of Nitrogen (NO and NO ₂ expressed as NO ₂)	Nitrogen (NO and NO ₂	110 mg/m ³ MSUL/MSDL to base load ¹	-	At least every 6 months At least every 6 months	BS EN 14792
A1 [Point A1 on site plan in	Carbon Monoxide	LCP61 WHRB in auxiliary mode	100 mg/m ³ MSUL/MSDL to base load ¹	-		BS EN 15058
schedule 7]	Sulphur Dioxide	fired on natural gas	38.5 mg/m ³ MSUL/MSDL to base load ¹	-		Concentration by calculation, as agreed in
	Dust		5.5 mg/m ³ MSUL/MSDL to base load ¹	-		writing with the Environment Agency
A1 [Point A1 on site plan in schedule 7]	Oxides of Nitrogen (NO and NO ₂ expressed as NO ₂)	LCP61 WHRB in auxiliary mode fired on gas-oil	200 mg/m ³ MSUL/MSDL to base load ¹	-	At least every 6 months	BS EN 14792

	Point source emi	T	l imit	Deference	Manitarina	Manitorina
Emission point ref. & location	Parameter	Source	Limit (including unit)-these limits do not apply during start up or shut down.	Reference Period	Monitoring frequency	Monitoring standard or method
A1 [Point A1 on site plan in schedule 7]	Sulphur Dioxide	LCP61 WHRB in auxiliary mode fired on gas-oil	385 mg/m ³ MSUL/MSDL to base load ¹	-	At least every	Concentration by calculation, as agreed in writing with the Environment Agency
	Dust		33 mg/m ³ MSUL/MSDL to base load ¹	-	6 months	Concentration by calculation, as agreed in writing with the Environment Agency
	Oxygen	LCP61 Gas turbine with WHRB in supplementary mode fired on natural gas. LCP61 WHRB in auxiliary mode fired on natural gas OR gas-oil	-	-	Periodic As appropriate to reference	BS EN 14789
A1 [Point	Water Vapour		-	-		BS EN 14790
A1 on site plan in schedule 7]	As required by the Method Implementation Document for BS EN 15259		-	-	Pre-operation and when there is a significant operational change	BS EN 15259
	Oxides of Nitrogen (NO and NO ₂ expressed as NO ₂)		200 mg/m ³ MSUL/MSDL to base load ¹	-	At least every 6 months	BS EN 14792
A2 [Point A2 on site plan in	Carbon Monoxide	LCP61 PB1 fired on	100 mg/m ³ MSUL/MSDL to base load ¹	-		BS EN 15058
schedule 7]	Sulphur Dioxide	natural gas	38.5 mg/m ³ MSUL/MSDL to base load ¹	-	At least every	Concentration by calculation, as agreed in
	Dust		5.5 mg/m ³ MSUL/MSDL to base load ¹	-	6 months	writing with the Environment Agency

	Point source emi		l imais	Defenses	Manite :::: ::	Manitarina
Emission point ref. & location	Parameter	Source	Limit (including unit)-these limits do not apply during start up or shut down.	Reference Period	Monitoring frequency	Monitoring standard or method
A2 [Point	Oxides of Nitrogen (NO and NO ₂ expressed as NO ₂)	Long	495 mg/m ³ MSUL/MSDL to base load ¹	-	At least every 6 months	BS EN 14792
A2 on site plan in schedule 7]	Sulphur Dioxide	LCP61 PB1 fired on gas-oil	385 mg/m ³ MSUL/MSDL to base load ¹	-	At least every	Concentration by calculation, as agreed in
	Dust		33 mg/m ³ MSUL/MSDL to base load ¹	-	6 months	writing with the Environment Agency
	Oxygen		-	-	Periodic As appropriate to reference	BS EN 14789
A2 [Point A2 on site plan in schedule 7]	Water Vapour	LCP61 PB1 fired on natural gas OR gas-oil	-	-		BS EN 14790
	As required by the Method Implementation Document for BS EN 15259		-	-	Pre-operation and when there is a significant operational change	BS EN 15259
A3 [Point A3 on site plan in schedule	Oxides of Nitrogen (NO and NO ₂ expressed as NO ₂)	HBP1 fired on natural gas	110 mg/m ³	-	At least every 6 months	BS EN 14792
7]	Carbon Monoxide		100 mg/m ³	-		BS EN 15058
A3 [Point A3 on site plan in schedule	Oxides of Nitrogen (NO and NO ₂ expressed as NO ₂)	HBP1 fired on gas-oil	200 mg/m ³	-	At least every 6 months	BS EN 14792
7]	Carbon Monoxide		150 mg/m ³	-		BS EN 15058
A3 [Point A3 on site plan in schedule 7]	Oxygen	HBP1 fired on natural gas OR gas-oil	-	-	Periodic As appropriate to reference	BS EN 14789

Table S3.1	Point source emis	ssions to air				
Emission point ref. & location	Parameter	Source	Limit (including unit)-these limits do not apply during start up or shut down.	Reference Period	Monitoring frequency	Monitoring standard or method
A3 [Point A3 on site plan in schedule 7]	Water Vapour	HBP1 fired on	-	-	Periodic As appropriate to reference	BS EN 14790
A3 [Point A3 on site plan in schedule 7]	As required by the Method Implementation Document for BS EN 15259	natural gas OR gas-oil	-	-	Pre-operation and when there is a significant operational change	BS EN 15259
A4 [Point A4 on site plan in schedule 7] Oxides of Nitrogen (NO and NO ₂ expressed as NO ₂) Carbon Monoxide Sulphur Dioxide	LCP61	-	-	Concentration by calculation, every 4380	Agreed in writing with the	
		Gas turbine by- pass	-	-	operational hours or 2 years,	Environment Agency
	Sulphur Dioxide		-	-	whichever is sooner.	
	Dust		-	-		

Note 1: This ELV applies where the load varies between MSUL/MSDL and base load during the sampling period. MSUL and MSDL are defined in Table S1.5.

Table S3.2 Point Source emissions to water (other than sewer) – emission limits and monitoring requirements						
Emission point ref. & location	Parameter	Source	Limit (incl. unit)	Reference period	Monitoring frequency	Monitoring standard or method
Minor release points as identified in H/A1/152879 sheet 6 emissions to Fenay Beck	No parameter set	Surface water	No limit set	-	-	Permanent sampling access not required

Table S3.3 Point source emissions to sewer, effluent treatment plant or other transfers off-site-emission limits and monitoring requirements

Emission point ref. & location	Parameter	Source	Limit (incl. Unit)	Reference period	Monitoring frequency	Monitoring standard or method
PE1 [Point PE1 on figure appendix 6 to ASR emission to Installations effluent treatment plant]	No parameter set	Collection sump drain from tanker off-loading area	No limit set	-	-	Permanent sampling access not required
PE2 [Point PE2 on figure appendix 6 to ASR emission to Installations effluent treatment plant]	No parameter set	Surface waters and waste waters from caustic, sulphuric acid and effluent plant	No limit set	-	-	Permanent sampling access not required
PE3 [Point PE3 on figure appendix 6 to ASR emission to Installations effluent treatment plant]	No parameter set	Condensate blow down from within the CHP plant	No limit set	-	-	Permanent sampling access not required
PE4 [Point PE4 on figure appendix 6 to ASR emission to Installations effluent treatment plant]	No parameter set	Dry sump to oil storage bund	No limit set	-	-	Permanent sampling access not required
PE5 [Point PE5 on figure appendix 6 to ASR emission to Installations effluent treatment plant]	No parameter set	HP boiler house surface water drains	No limit set	-	-	Permanent sampling access not required

Table S3.4 Process monitoring requirements						
Emission point reference or source or description of point of measurement	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications		
LCP61	Operating hours on gas oil	Continuous	Not applicable	Reported annually		
HP1	Operating hours on gas oil	Continuous	Not applicable	Reported annually		

Schedule 4 – Reporting

Parameters, for which reports shall be made, in accordance with conditions of this permit, are listed below.

Table S4.1 Reporting of monitoring data					
Parameter	Emission or monitoring point/reference	Reporting period	Period begins		
Oxides of nitrogen			1 January, 1 July		
Carbon Monoxide		Every 6 months			
Sulphur Dioxide	- A1, A2 and A3				
Dust					

Table S4.2: Resource Efficiency Metrics				
Parameter	Units			
Electricity Exported	GWhr			
Heat Exported	GWhr			
Mechanical Power Provided	GWhr			
Fossil Fuel Energy Consumption	GWhr			
Non-Fossil Fuel Energy Consumption	GWhr			
Annual Operating Hours	hr			
Water Abstracted from Fresh Water Source	m ³			
Water Abstracted from Borehole Source	m ³			
Water Abstracted from Estuarine Water Source	m ³			
Water Abstracted from Sea Water Source	m ³			
Water Abstracted from Mains Water Source	m ³			
Gross Total Water Used	m ³			
Net Water Used	m ³			
Hazardous Waste Transferred for Disposal at another installation	t			
Hazardous Waste Transferred for Recovery at another installation	t			
Non-Hazardous Waste Transferred for Disposal at another installation	t			
Non-Hazardous Waste Transferred for Recovery at another installation	t			
Waste recovered to Quality Protocol Specification and transferred off-site	t			
Waste transferred directly off-site for use under an exemption / position statement	t			

Table S4.3 Chapter III Performance parameters for reporting to DEFRA				
Parameter	Frequency of assessment	Units		
Thermal Input Capacity for LCP61	Annually	MW		
Annual Fuel Usage for LCP61	Annually	TJ		
Total Emissions to Air of NO _x for LCP61	Annually	t		
Total Emissions to Air of SO ₂ for LCP61	Annually	t		
Total Emissions to Air of Dust for LCP61	Annually	t		
Operating Hours for each LCP61	Annually	hr		

Table S4.4 Reporting forms						
Media/ parameter	Reporting format	Starting Point	Agency recipient	Date of form		
Air & Energy	Form IED AR1 – SO ₂ , NO _x and dust mass emission and energy for LCP61	01/01/16	National	31/12/15		
LCP	Form IED HR1 – operating hours for LCP61	01/01/16	National	31/12/15		
Air	Form IED PM1 - discontinuous monitoring and load for LCP61	01/01/16	Area Office	31/12/15		
Air	Form Air1 for HP1	01/01/16	Area Office	31/12/15		
Resource Efficiency	Form REM1 – resource efficiency annual report	01/01/16	National	31/12/15		
Other performance indicators	Form performance 1 or other form as agreed in writing by the Environment Agency	01/01/16	Area Office	31/12/15		

Schedule 5 - Notification

These pages outline the information that the operator must provide.

(b) Notification requirements for the breach of a limit

Emission point reference/ source

Measured value and uncertainty

Measures taken, or intended to be taken, to stop the emission

Date and time of monitoring

To be notified within 24 hours of detection unless otherwise specified below

Units of measurement used in information supplied under Part A and B requirements shall be appropriate to the circumstances of the emission. Where appropriate, a comparison should be made of actual emissions and authorised emission limits.

If any information is considered commercially confidential, it should be separated from non-confidential information, supplied on a separate sheet and accompanied by an application for commercial confidentiality under the provisions of the EP Regulations.

Part A

Permit Number

Name of operator

Location of Facility	
Time and date of the detection	
	ny malfunction, breakdown or failure of equipment or techniques, nce not controlled by an emission limit which has caused, is pollution
To be notified within 24 hours of c	letection
Date and time of the event	
Reference or description of the location of the event	
Description of where any release into the environment took place	
Substances(s) potentially released	
Best estimate of the quantity or rate of release of substances	
Measures taken, or intended to be taken, to stop any emission	
Description of the failure or accident.	

Parameter(s)

Limit

Parameter	Notification period
(c) Notification requirements for the detection of any signif	icant adverse environmental effect
To be notified within 24 hours of detection	
Description of where the effect on the environment was detected	
Substances(s) detected	
Concentrations of substances detected	
Data of manitoring/agentling	
Part B – to be submitted as soon as p	oracticable
Part B – to be submitted as soon as p	oracticable
Part B – to be submitted as soon as put Any more accurate information on the matters for notification under Part A. Measures taken, or intended to be taken, to prevent	oracticable
Part B – to be submitted as soon as part B – to be submitted as soon as part B – to be submitted as soon as part B. Any more accurate information on the matters for notification under Part A. Measures taken, or intended to be taken, to prevent a recurrence of the incident	oracticable
Part B – to be submitted as soon as put Any more accurate information on the matters for notification under Part A. Measures taken, or intended to be taken, to prevent	oracticable
Part B – to be submitted as soon as part B – to be submitted as soon as part B – to be submitted as soon as part B. Any more accurate information on the matters for notification under Part A. Measures taken, or intended to be taken, to prevent a recurrence of the incident Measures taken, or intended to be taken, to rectify, limit or prevent any pollution of the environment	oracticable
Part B – to be submitted as soon as part B – to be submitted as soon as part B – to be submitted as soon as part B. Any more accurate information on the matters for notification under Part A. Measures taken, or intended to be taken, to prevent a recurrence of the incident Measures taken, or intended to be taken, to rectify, limit or prevent any pollution of the environment which has been or may be caused by the emission The dates of any unauthorised emissions from the	oracticable
Part B – to be submitted as soon as part B – to be submitted as soon as part B – to be submitted as soon as part B. Any more accurate information on the matters for notification under Part A. Measures taken, or intended to be taken, to prevent a recurrence of the incident Measures taken, or intended to be taken, to rectify, limit or prevent any pollution of the environment which has been or may be caused by the emission The dates of any unauthorised emissions from the	practicable
Part B – to be submitted as soon as part B – to be submitted as soon as part B. Any more accurate information on the matters for notification under Part A. Measures taken, or intended to be taken, to prevent a recurrence of the incident Measures taken, or intended to be taken, to rectify, limit or prevent any pollution of the environment which has been or may be caused by the emission The dates of any unauthorised emissions from the facility in the preceding 24 months.	practicable
Part B – to be submitted as soon as part B – to be submitted as soon as part B. Any more accurate information on the matters for notification under Part A. Measures taken, or intended to be taken, to prevent a recurrence of the incident Measures taken, or intended to be taken, to rectify, limit or prevent any pollution of the environment which has been or may be caused by the emission The dates of any unauthorised emissions from the facility in the preceding 24 months.	practicable

Time periods for notification following detection of a breach of a limit

^{*} authorised to sign on behalf of the operator

Schedule 6 – Interpretation

"accident" means an accident that may result in pollution.

"application" means the application for this permit, together with any additional information supplied by the operator as part of the application and any response to a notice served under Schedule 5 to the EP Regulations.

"authorised officer" means any person authorised by the Environment Agency under section 108(1) of The Environment Act 1995 to exercise, in accordance with the terms of any such authorisation, any power specified in section 108(4) of that Act.

"background concentration" means such concentration of that substance as is present in:

for emissions to surface water, the surface water quality up-gradient of the site; or

for emissions to sewer, the surface water quality up-gradient of the sewage treatment works discharge.

"base load" means: (i) as a mode of operation, operating for >4000hrs pa; and (ii) as a load, the maximum load under ISO conditions that can be sustained continuously, i.e. maximum continuous rating.

"calendar monthly mean" means the value across a calendar month of all validated hourly means.

"CEN" means Commité Européen de Normalisation.

"Combustion Technical Guidance Note" means IPPC Sector Guidance Note Combustion Activities, version 2.03 dated 27th July 2005 published by Environment Agency.

"disposal". Means any of the operations provided for in Annex I to Directive 2008/98/EC of the European Parliament and of the Council on waste.

"emissions to land" includes emissions to groundwater.

"Energy efficiency" the ISO base load net plant efficiency means the performance value established by acceptance testing following commissioning or performance testing following improvements made to the plant that could affect the efficiency.

"Energy efficiency" the annual net plant energy efficiency means the value calculated from the operational data collected over the year.

"EP Regulations" means The Environmental Permitting (England and Wales) Regulations SI 2010 No.675 and words and expressions used in this permit which are also used in the Regulations have the same meanings as in those Regulations.

"emissions of substances not controlled by emission limits" means emissions of substances to air, water or land from the activities, either from the emission points specified in schedule 3 or from other localised or diffuse sources, which are not controlled by an emission or background concentration limit.

"groundwater" means all water, which is below the surface of the ground in the saturation zone and in direct contact with the ground or subsoil.

"HPB" means high pressure boiler.

"Industrial Emissions Directive" means DIRECTIVE 2010/75/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 24 November 2010 on industrial emissions.

"large combustion plant" or "LCP" is a combustion plant or group of combustion plants discharging waste gases through a common windshield or stack, where the total thermal input is 50 MW or more, based on net calorific value. The calculation of thermal input, excludes individual combustion plants with a rated thermal input below 15MW.

"MCERTS" means the Environment Agency's Monitoring Certification Scheme.

"MCR" means maximum continuous rating.

"MSDL" means minimum shut-down load as defined in Implementing Decision 2012/249/EU.

"MSUL" means minimum start-up load as defined in Implementing Decision 2012/249/EU.

"Natural gas" means naturally occurring methane with no more than 20% by volume of inert or other constituents.

"ncv" means net calorific value.

"operational hours" are whole hours commencing from the first unit ending start up and ending when the last unit commences shut down.

"PB" means package boiler.

"quarter" means a calendar year quarter commencing on 1 January, 1 April, 1 July or 1 October.

"recovery" means any of the operations provided for in Annex II to Directive 2008/98/EC of the European Parliament and of the Council on waste.

"Standby fuel" means alternative liquid fuels that are used in emergency situations when the gas fuel which is normally used, is not available.

"WHB" means waste heat boiler.

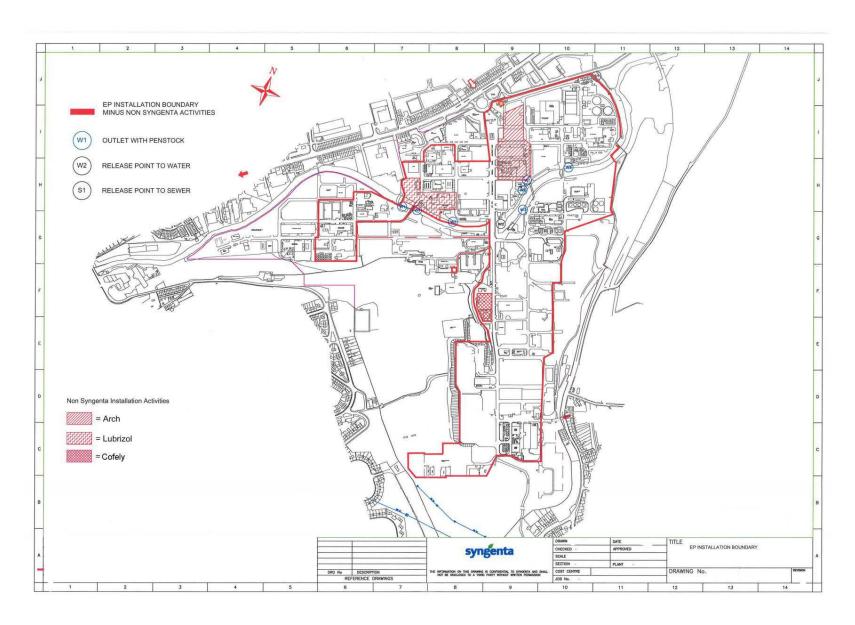
Where a minimum limit is set for any emission parameter, for example pH, reference to exceeding the limit shall mean that the parameter shall not be less than that limit.

Unless otherwise stated, any references in this permit to concentrations of substances in emissions into air means:

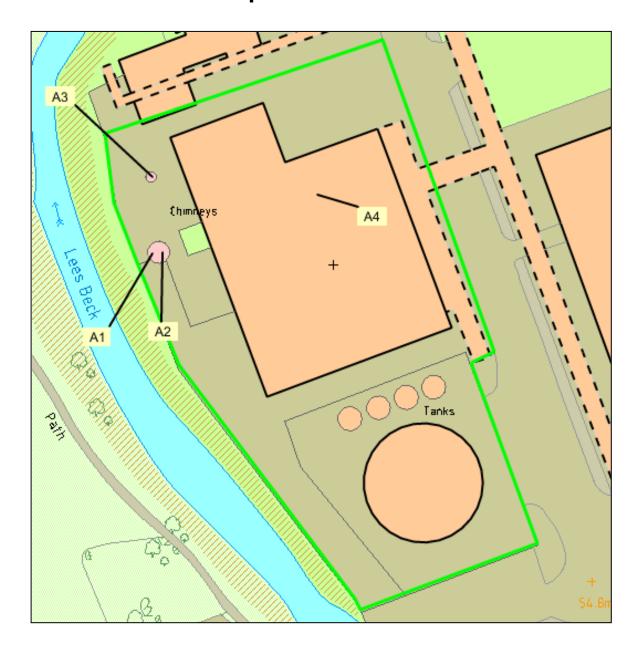
- in relation to emissions from combustion processes, the concentration in dry air at a temperature of 273K, at a pressure of 101.3 kPa and with an oxygen content of 3% dry for liquid and gaseous fuels, 6% dry for solid fuels; and
- in relation to emissions from gas turbine or compression ignition engine combustion processes, the concentration in dry air at a temperature of 273K, at a pressure of 101.3kPa and with an oxygen content of 15% dry for liquid and gaseous fuels; and/or
- in relation to emissions from combustion processes comprising a gas turbine with a waste heat boiler, the concentration in dry air at a temperature of 273K, at a pressure of 101.3kPa and with an oxygen content of 15% dry, unless the waste heat boiler is operating alone, in which case, with an oxygen content of 3% dry for liquid and gaseous fuels.

"year" means calendar year ending 31 December.

Schedule 7a – Site plan



Schedule 7b – Site plan



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END OF PERMIT